IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of the claims in the application:

1-42. (Cancelled)

43. (New) A system for controlling access to digital information, comprising:

a first information processing device including a processor having suitable memory adapted to store software instructions operable to cause said processor to perform the functions of:

retrieving a location identity attribute that identifies a specific geographic region, the location identity attribute comprising a location value that identifies a unique location within the geographic region and a proximity value that identifies an area that encompasses the unique location;

deriving a relative location parameter from the location identity attribute that maps all coordinates within the specific geographic region into a common value without identifying a location of the specific geographic region;

generating an encryption key using the location identity attribute and the relative location parameter as inputs;

encrypting the digital information using the encryption key;

sending the relative location parameter and the encrypted digital information; and

a second information processing device including a processor having suitable memory adapted to store software instructions operable to cause said processor to perform the functions of:

receiving the relative location parameter and the encrypted digital information;

determining a current location of the second information processing device;

generating a decryption key using the current location and the relative location parameter as inputs, wherein the decryption key will match the encryption key if the current location is within the specific geographic region; and

decrypting the digital information using the decryption key, wherein the digital information can only be decrypted if the decryption key matches the encryption key.

44.   (New)   The system of Claim 43, wherein the deriving function further comprises a mapping function f(x) according to the following equation:

$$f(x)=\Delta^*int(x/\Delta)$$

wherein x is a corresponding latitude or longitude of the location value, Δ is a length of a side between bounding latitudes or longitudes, and int is a function that returns an integral part of x/Δ.

45.   (New)   The system of Claim 43, wherein the proximity value defines a bounded rectangular area.

46.   (New)   The system of Claim 43, wherein the proximity value defines a circular bounded area.

47.   (New)   The system of Claim 43, wherein the encryption key generating function further comprises generating an initial key using the location value and the relative location parameter as inputs.

48.   (New)   The system of Claim 48, wherein the encryption key generating function further comprises transforming the initial key to yield the encryption key.

49.   (New) The system of Claim 43, wherein the location value further defines latitude and longitude measurements for the unique location.

50.   (New) The system of Claim 43, wherein the location value further defines an altitude measurement for the unique location.

51.   (New) The system of Claim 43, wherein the location determining function performed by the second information processing device further comprises resolving the location from a street address for the second information processing device.

52.   (New) The system of Claim 43, wherein the location determining function performed by the second information processing device further comprises retrieving the location from a file stored within the memory of the second information processing device.

53.   (New) The system of Claim 43, wherein the second information processing device further comprises a GPS receiver, and wherein the location determining function performed by the second information processing device further comprises recovering the location from signals received by the GPS receiver.

54.   (New) The system of Claim 43, wherein the location determining function performed by the second information processing device further comprises recovering the location by triangulating RF signals received by the second information processing device.

55.   (New) The system of Claim 43, wherein the second information processing device further performs the function of allowing access to the digital information by a software application only at the specific geographic location.

56.   (New)   The system of Claim 43, wherein the second information processing device further performs the function of allowing retrieval of the digital information from the memory only at the specific geographic location.

57.   (New)   The system of Claim 43, wherein the second information processing device further performs the function of allowing visual display of the digital information only at the specific geographic location.

58.   (New)   The system of Claim 43, wherein the first information processing device further performs the function of appending the relative location parameter to the encrypted digital information.

59.   (New)   The system of Claim 59, wherein the receiving function performed by the second information processing device further comprises recovering the appended relative location parameter.

60.   (New)   The system of Claim 43, wherein the receiving function performed by the second information processing device further comprises receiving the relative location parameter and encrypted digital information from the first information processing device.

61.   (New)   The system of Claim 43, wherein the first information processing device further performs the function of communicating the relative location parameter and the encrypted digital information to the second information processing device.

62.   (New) An information processing device, comprising:

a processor having suitable memory adapted to store software instructions operable to cause the processor to perform the functions of:

retrieving a location identity attribute that identifies a specific geographic region, the location identity attribute comprising a location value that identifies a unique location within the geographic region and a proximity value that identifies an area that encompasses the unique location;

deriving a relative location parameter from the location identity attribute that maps all coordinates within the specific geographic region into a common value without identifying a location of the specific geographic region;

generating an encryption key using the location identity attribute and the relative location parameter as inputs;

encrypting the digital information using the encryption key; and

sending the relative location parameter and the encrypted digital information to a recipient; wherein the encrypted digital information can only be decrypted by the recipient device being located within the specific geographic region and having access to the relative location parameter.

63.   (New) The information processing device of Claim 62, wherein the deriving function further comprises a mapping function f(x) according to the following equation:

$$f(x) = \Delta * int(x/\Delta)$$

wherein x is a corresponding latitude or longitude of the location value, Δ is a length of a side between bounding latitudes or longitudes, and int is a function that returns an integral part of x/Δ.

64.   (New)   The information processing device of Claim 62, wherein the proximity value defines a bounded rectangular area.

65.   (New)   The information processing device of Claim 62, wherein the proximity value defines a circular bounded area.

66.   (New)   The information processing device of Claim 62, wherein the encryption key generating function further comprises generating an initial key using the location value and the relative location parameter as inputs.

67.   (New)   The information processing device of Claim 66, wherein the encryption key generating function further comprises transforming the initial key to yield the encryption key.

68.   (New)   The information processing device of Claim 62, wherein the proximity value defines at least one of a rectangular region, a polygonal region, a circular region, and an elliptical region.

69.   (New)   The information processing device of Claim 62, wherein the specific geographic region comprises at least one of a postal zip code, a state, a city, a county, a telephone area code, and a country.

70.   (New)   The information processing device of Claim 62, wherein the retrieving function further comprises retrieving a temporal value.

71.   (New)   The information processing device of Claim 62, wherein the location value further defines latitude and longitude measurements for the specific geographic region.

72.   (New)   The information processing device of Claim 62, wherein the processor further performs the function of appending the relative location parameter to the encrypted digital information.

73.   (New)   The information processing device of Claim 62, wherein the processor further performs the function of storing the encrypted digital information on a suitable storage medium.

74.   (New) An information processing device, comprising:

a processor having suitable memory adapted to store software instructions operable to cause the processor to perform the functions of:

receiving digital information that has been encrypted using an encryption key that was generated using a location identity attribute and a relative location parameter as inputs, the location identity attribute identifying a specific geographic region, the location identity attribute comprising a location value that identifies a unique location within the geographic region and a proximity value that identifies an area that encompasses the unique location, the relative location parameter mapping all coordinates within the specific geographic region into a common value without identifying a location of the specific geographic region;

receiving the relative location parameter;

determining a current location of the information processing device;

generating a decryption key using the current location and the relative location parameter as inputs, wherein the decryption key will match the encryption key if the current location is within the specific geographic region; and

decrypting the digital information using the decryption key, wherein the digital information can only be decrypted if the decryption key matches the encryption key.

75.   (New)   The information processing device of Claim 74, wherein the location value further defines latitude and longitude measurements for the specific geographic location.

76.   (New)   The information processing device of Claim 74, wherein the location value further defines an altitude measurement for the specific geographic location.

77.   (New)   The information processing device of Claim 74, wherein the location determining function further comprises resolving the location from a street address for the information processing device.

78.   (New)   The information processing device of Claim 74, wherein the location determining function further comprises retrieving the location from a file stored within the memory of the information processing device.

79.   (New)   The information processing device of Claim 74, further comprising a GPS receiver, and wherein the location determining function further comprises recovering the location from the GPS receiver.

80.   (New)   The information processing device of Claim 74, wherein the location determining function further comprises recovering the location by triangulating RF signals received by the information processing device.

81.   (New)   The information processing device of Claim 74, wherein the processor further performs the function of allowing access to the digital information by a software application executed by the processor only at the specific geographic location.

82.   (New)   The information processing device of Claim 74, wherein the processor further performs the function of allowing retrieval of the digital information from the memory only at the specific geographic location.

83.   (New) The information processing device of Claim 74, further comprising a visual display monitor operatively coupled to the processor, and wherein the processor further performs the function of allowing visual display of the digital information on the visual display monitor only at the specific geographic location.